

## **‘ELEMENT SYMBOL AND COMMON OXIDATION STATES**

**Stuff you need to memorize!!!!**

### **Monatomic ions**

<b>NAME</b>	<b>SYMBOL</b>	<b>CHARGES</b>	<b>Other info.</b>
Hydrogen		1+	
Lithium		1+	
Sodium		1+	
Potassium		1+	
Beryllium		2+	
Magnesium		2+	
Calcium		2+	
Strontium		2+	
Barium		2+	
Boron		3+	
Aluminum		3+	
Carbon		4+, 2+	
Silicon		4+, 2+	
Tin		4+, 2+	
Lead		4+, 2+	
Nitrogen		3-	
Oxygen		2-	
Sulfur		2-	
Fluorine		1-	
Chlorine		1-	
Bromine		1-	
Iodine		1-	
Scandium		3+	
Titanium		4+, 3+	
Vanadium		5+, 4+, 3+, 2+	
Chromium		3+, 2+, 6+	
Manganese		2+, 4+, 7+	
Iron		2+, 3+	
Cobalt		2+, 3+	
Nickel		2+, 3+	
Copper		2+, 1+	
Silver		1+	
Gold		3+, 1+	
Zinc		2+	
Cadmium		2+	
Mercury		2+	
Mercury (diatomic)	Hg <sub>2</sub>	2+	

**Common polyatomic ions – formula and charge**  
**Memorize!**

ION NAME	SYMBOL AND CHARGE
Dihydrogen phosphate	$\text{H}_2\text{PO}_4^-$
Acetate	$\text{C}_2\text{H}_3\text{O}_2^-$
Hydrogen sulfite	$\text{HSO}_3^-$
Hydrogen sulfate	$\text{HSO}_4^-$
Hydrogen carbonate	$\text{HCO}_3^-$
Nitrite	$\text{NO}_2^-$
Nitrate	$\text{NO}_3^-$
Cyanide	$\text{CN}^-$
Hydroxide	$\text{OH}^-$
Permanganate	$\text{MnO}_4^-$
Hypochlorite	$\text{ClO}^-$
Chlorite	$\text{ClO}_2^-$
Chlorate	$\text{ClO}_3^-$
Perchlorate	$\text{ClO}_4^-$
Hydrogen phosphate	$\text{HPO}_4^{2-}$
Oxalate	$\text{C}_2\text{O}_4^{2-}$
Sulfite	$\text{SO}_3^{2-}$
Sulfate	$\text{SO}_4^{2-}$
Carbonate	$\text{CO}_3^{2-}$
Chromate	$\text{CrO}_4^{2-}$
Dichromate	$\text{Cr}_2\text{O}_7^{2-}$
Silicate	$\text{SiO}_3^{2-}$
Phosphite	$\text{PO}_3^{3-}$
Phosphate	$\text{PO}_4^{3-}$
Ammonium	$\text{NH}_4^+$